Working Paper Series

When Consumption Generates Social Capital: Creating Room for Manoeuvre for Pro-Poor Policies

Leonardo Becchetti
Melania Michetti

ECINEQ WP 2008 – 88

ECINEC 2008-88
May 2008

www.ecineq.org

When Consumption Generates Social Capital: Creating Room for Manoeuvre for Pro-Poor Policies[1]

Leonardo Becchetti [2]
Università Tor Vergata

and

Melania Michetti
Fondazione ENI Enrico Mattei and Università Cattolica del Sacro Cuore - Milano

Abstract

Economic interactions are often accused of being neutral, or even of generating adverse effects, not only on the social fabric but also on a factor (social capital) which is regarded as the foundation of both socio-economic activity and prosperity. In this paper we document how a particular form of economic interaction (affiliation of marginalised producers to a first level association and to the fair trade import channel) has indeed positive effects on a specific type of social capital. Our findings on a sample of Kenyan farmers show that years of affiliation to Fair Trade significantly affect the participation in elections and the trust placed in trade unions, political parties and the government, net of the impact of other controls and after accounting for the selection bias effect. This implies that consumers buying fair trade products contribute to reinforce both social cohesion and the institutions in countries in which these variables are fundamental in creating room for manoeuvre for pro-poor (equity plus growth) policies.

Keywords: Fair trade, social capital, impact study
JEL Classification: 019, 022, D64

[1] Paper realised under the research project "Programma di sostegno all'attività produttiva - commerciale delle organizzazioni artigianali senza scopo di lucro del Kenya ". The financial contribution of Provincia Autonoma di Trento is gratefully acknowledged. The authors thank F. Adriani, S. Anderson, M. Bagella, K Basu, R. Cellini, L. Debenedictis, I. Hasan, M. Fenoaltea, P. Garella, L. Lambertini, S. Martin, C. McIntosh, N. Phelps, G. Piga and P. Scaramozzino, M E. Tessitore, P. Wachtel, C. Whilborg, B. Wydick for the discussion on fair trade issues and all participants of seminars held at the XV Villa Mondragone Conference, at SOAS in London, at the Copenhagen Business School and the Universities of Catania, Bologna, Macerata and Milano Bicocca for the useful comments and suggestions received. The usual disclaimer applies.
[2]**Address for correspondence**: Facoltà di Economia, Dipartimento di Economia e Istituzioni, Via Columbia 2, 00133 Roma. E-Mail : Becchetti@economia.uniroma2.it

1. Introduction

Social capital is a multi-faceted concept. Depending on the different contexts, it may refer to trust and trustworthiness in interpersonal relationships, civic sense, trust in institutions and willingness to pay for public goods.

The role of social capital is increasingly coming to the forefront since economists have acknowledged its importance in promoting well-being and growth in many theoretical and empirical contributions[3]: social capital may help to sustain cooperation, reduce market failures as well as negative externalities and conflicts of interests. On the other hand, individuals who dispose of a larger stock of social capital usually seem to be healthier and happier.[4]

Many studies therefore document that trust (one of the two most used dimensions of social capital together with organisation membership) is a "lubricant" (Arrow, 1974) of the socio-economic system, although not all types of trust and social connections are equally beneficial for economic well-being and equally useful to create a prosperous society with rising social efficiency and economic performance.

In this respect, an important distinction (which runs parallel to that between "bridging" and "bonding" associations) must be made between "particularised" and "generalised" trust.

When trust is "specific" or "*placed in people one has repeated interactions with.*" (Knack and Keefer, 1997, p.1258) and when (bonding but not bridging) associations are mainly oriented

[3] Knack and Keefer (1997) and Zak and Knack (2001) find that the level of trust in a given country has positive effects on economic growth at aggregate level. Putnam (1993) and La Porta et al. (1997 and 1999) highlight the role of trust in improving government performance. Brown and Ashman (1996) state that different forms of social capital are central to solving development problems through cooperation. Becchetti and Pace (2006) and Fullenkamp and Chami (2002) analyse the positive effects of trust and trustworthiness on firm productivity. Krishna and Uphoff (1999), find a positive and significant relationship between superior development outcomes and an index of social capital variables. At the aggregate level, it has been shown that the reverse of trust (absence of tolerance or, even worse, ethnic conflicts) prevents the development of economic relationships among individuals belonging to different ethnic groups and is therefore one of the microeconomic causes of poor economic performance. Contributions at micro and macro level on the effects of particular forms of intra-group lack of trust, such as social heterogeneity and ethnicity, on economic prosperity have been developed, among others, by Alesina, Baqir and Easterly (1999), Gradstein and Justman (2002), Gradstein (2003) and Montalvo and Reynal-Querol (2005a and 2005b).

[4] Rose (2000), in an empirical analysis in Russia, finds that the involvement or exclusion from formal and informal networks and trust depends on significant social capital. Arts and Halman (2004) argue that individual stocks of social capital, mostly in the form of trust, are significantly affected by welfare characteristics and designs: fairer systems encourage social capital accumulation.

towards the promotion of the well-being of their members, without considering the effects on non-members, the effect on social cohesion and prosperity may be low, or even negative.

On the contrary, the effect on aggregate well-being is expected to be great when trust is "generalised", or *"goes beyond the boundaries of kinship and friendship and even beyond the boundaries of acquaintance"* (Stolle and Rochon, 1998, p. 48) and includes "*trusting most (but not all) people you do not know or know anything about"* (Berggren and Jordal, 2006, p.143), and when members of a (bridging) association care about the effects of their actions on non-members (or even have their welfare as their goal). [5]

After discovering the importance of trust in its different specifications, economists started being interested in identifying the factors which might influence this variable and through it, indirectly, economic development.

On this issue, a well-established opinion highlights an important paradox: trust is fundamental for the economic system but some features of market economics (labour mobility, anonymity of interactions, individualism) may erode and not reinforce trust.[6] Hence, the risk for the socio-economic system is that of endangering its very foundations.

In our paper we identify a channel through which economic activity and economic transactions may reinforce and not erode social capital. More specifically, we demonstrate that the "socially responsible" consumption of fair trade products may produce positive effects on trust in the

[5] Examples in which given forms of social capital do not necessarily encourage socio-economic actions - since they may be functional to some group or individual, but could cause economic as well as social damages to others - are illustrated, among others, by Coleman (1988), Olson (1971) and Schiff (1999).

[6] Polanyi (1944) argues that market economies tend to destroy the net of social relationships that keep society together. The labour market induces people to move to where they could earn the most, creating strangers in strange lands. Human status rankings have become the product of market forces rather than the result of social norms about justice. On a similar line Hirsch (1976) argues that social morality is a "legacy of the pre-capitalist and pre-industrial past" (Hirsch 1976: 117) which is fundamental for the functioning of economic transactions. Such a legacy is a stock which is depleted by the values (such as individualism and avarice) produced by the market economy itself and by the social context in which market economies operate (anonymity, mobility of workers, etc.).

institutions and on political participation for a group of Kenyan marginalised producers affiliated to Fair Trade (from now on also FT).

As described in more detail in section 2, Fair Trade is an innovative value chain which aims to provide higher economic value and social benefits to marginalised primary producers. The bundle of social and environmental-friendly characteristics which stimulate demand of ethically concerned consumers does not include specifically the creation of social capital, but this effect may be produced indirectly. In fact, the success of fair trade depends on the virtuous *twinning* of the fair trade importers with a local association of producers. Participation in such an association, which complies with fair trade criteria, is very likely to induce the strengthening of the members' social capital and trust as a side effect. However, a relevant question for empirical analysis is the following: is this social capital only group specific (bonding) or also generalised (bridging)?

The answer to this question is particularly relevant also in view of the socio-political conflicts that exploded in Kenya after the 2008 elections [7] (three years after our survey) showing that the reinforcement of generalised trust in the form of trust in the government, political parties, trade unions, and supporting of associations which promote this form of social capital, may be fundamental in Sub-Saharan countries.

Our consideration is shared by recent contributions to this branch of the literature. By looking at the experience of LDCs, Easterly, Ritzen and Woolcock (2000) observe that pro-poor (growth plus equity) policies are often hampered not just by lack of moral fibre in governors, but also by lack of room for manoeuvre caused by weak institutions and lack of social cohesion.

Easterly (2000) adds, in a similar perspective, that high-quality institutions - reflected in factors such as rule of law, bureaucratic quality, freedom from government expropriation, and freedom

[7] The UN Office for the Coordination of Humanitarian Affairs reports that "*According to government figures, the post-election violence has claimed the lives of at least 680 people and displaced another 255,000. However, the local media estimates that more than 1,000 people have died. Violence erupted in parts of the country soon after the Electoral Commission of Kenya announced President Mwai Kibaki as winner of presidential elections held on 27 December 2007*."

The most remarkable economic consequences of the crisis have been the sharp drop in tourist revenues with an estimate of around 150 job losses and a health crisis due to the slowing down and/or interruption of treatments for HIV and other illnesses.

from government repudiation of contracts - mitigate the adverse economic effects of ethnic fractionalisation identified by Easterly and Levine (1997).

These contributions enhance the value that virtuous economic processes may have in reinforcing confidence in institutions in these difficult frameworks. Such confidence may be crucial for making institutions stronger, thereby avoiding social unrest and promoting economic prosperity.

Our paper provides an original contribution in this field at a micro level by testing the effect on social capital resulting from the participation of marginalised producers to a first level association (Meru Herbs) which was created by Fair trade importers and which exports its products through them. Since the promotion of the attitude to cooperate within a given organisation does not necessarily generate positive effects in terms of generalised social capital (and may be oriented merely to create benefits for participants at the expense of third parties), the goal of this paper is that of testing whether Fair Trade and Meru Herbs affiliation has not only "bonding", but also "bridging" effects.

The section which follows will show that fair trade, as mentioned above, does not have straightforward criteria that focus on the goal of reinforcing social capital. However, its approach, aimed at supporting virtuous local cooperatives or producers' associations, may generate this result as an indirect effect. The rest of the paper is organised as follows: section 3 presents the survey design, sections 4 and 5 descriptive and econometric findings respectively and section 6 relates the conclusions.

2. Fair trade characteristics and points for debate

Fair trade is an original value chain in which importers from Europe and the US establish long term relationships with associations of marginalised producers in LDCs to promote capacity building, market inclusion and improvement of local well-being.

IFAT, the international "umbrella" organisation of importers, producers' associations, and final retailers establishes that, in order to obtain the fair trade label, the following criteria need to be met: i) Creation of opportunities for economically disadvantaged producers; ii) Transparency and accountability; iii) Capacity building; iv) Promotion of Fair Trade; v) Payment of a fair price; vi) Gender Equity; vii) Working conditions *(a healthy working environment for producers; the participation of children (if any) does not adversely affect their well-being but security, educational requirements and need for play and conforms to the UN Convention on the Rights of the Child as well as the laws and norms in force in the local context)*; viii) The environment; ix) Trade Relations (*Fair Trade Organisations trade keeping in mind the social, economic and environmental well-being of marginalised small producers and do not maximise profit at their expense; they maintain long-term relationships based on solidarity, trust and mutual respect that contribute to the promotion and growth of Fair Trade; whenever possible, producers are assisted with access to pre-harvest or pre-production advance payment).*

In the fair trade practice these criteria are translated into a series of initiatives which include: i) an anti-cyclical mark-up on producer prices including an insurance mechanism which prevents them from falling below a certain threshold;[8] ii) anticipated financing schemes; iii) export services; iv) direct investment in local public goods (health, education) through contributions provided to the local producers' associations.

It has been shown that such criteria may address some typical market failures such as credit rationing, under-investment in local public goods (health, education, professional training), reduction of market power of local intermediaries and/or money lenders (Becchetti and Rosati, 2006).[9] Finally, the market success of these products has been shown to be able to generate

[8] An example of Fair Trade price premium is in the banana market. In Ecuador, the 2005 conventional market price for 1.14 kilos of bananas was US $2.91, against a FT price of US $7.75. Evidence of FT premium on prices of coffee beans and cocoa in the last 20 years is also well known and available from the authors upon request.

[9] For a theoretical evaluation of the effects of FT from the perspective of trade theories see Maseland and De Vaal (2002). Other relevant papers dealing with various aspects of the impact of FT are those of Moore (2004), Hayes (2004) and Redfern and Sneker (2002).

contagion effects which increase corporate social responsibility of profit maximising competitors (Becchetti and Solferino, 2008).

Nevertheless, Fair Trade has been criticised on three main grounds. Firstly, it is said that the intermediate good price mark-up is a distortion with respect to the market price and therefore it sends the wrong signals to producers, leading to oversupply. Secondly, it has been argued that the alternative strategy of buying a traditional product and then transferring to poor beneficiaries an amount equivalent to the price differential between the fair trade and the traditional product may be welfare enhancing with respect to the fair trade solution (LeClair, 2002). Thirdly, it has been conjectured that fair trade can create negative externalities on non-affiliated local producers (LeClair, 2002).

Regarding the first point, it has been shown that the anti-cyclical price premium is not a distortion, but an intervention which addresses specific market failures in situations where local intermediaries and money lenders are shown to have monopsonic power on marginalised producers.[10] Furthermore, it has been argued that the premium on the intermediate price is an intangible factor which adds social value and makes the final FT product different from the standard one, thereby making fair trade a general purpose innovation which increases product variety.

As far as the second point is concerned, it can be argued that charity, in contrast with the "portfolio vote" of FT consumers,[11] has no local antitrust effects and does not create contagion among profit maximising competitors of fair trade.

---

[10] This has been verified by Becchetti and Costantino (2008) for Meru Herbs where fair trade reduced dependence of affiliated farmers on Nairobi intermediaries and by Becchetti et al. (2007) in a study on affiliated Peruvian wool producers in the Juliaca region (Titicaca lake) where the introduction of fair trade led to an increase in their bargaining power with local intermediaries and to the disappearance of an illegal night market.

[11] In this respect FT is just the most well known application of the more general principle of consumers' willingness to pay for social issues when they buy products. Other recent interesting examples are the dedicated shops in Sicily selling products of entrepreneurs who have decided not to pay fees to the local mafia ("addiopizzo shops") and all those initiatives in which corporations are able to extract the "social surplus" from socially responsible consumers. To quote just one of them, Cathay Pacific adopted a dual pricing policy offering "concerned" consumers a

The third point has been addressed empirically in an impact analysis on the effects of affiliation on two different groups of Peruvian producers (Becchetti et al., 2007); it has shown that externalities on local non affiliated producers are positive in one case and negative in a second one.

As a result of the above considerations, Fair trade is a new interesting phenomenon which deserves empirical investigation, for at least three reasons.

Firstly, the literature on this topic is very limited, while fair trade is becoming popular in the US and in Europe since consumers have started looking not only at prices and quality, but also at the social and environmental responsibility of products. In the last years FT has achieved significant shares in some market segments (47 percent of bananas in Switzerland and 20 percent of ground coffee in the UK) and the consumers' willingness to pay for social and environmental responsibility revealed in different surveys around Europe indicate values even greater than these (Bird and Hughes, 1997; Demos and PI/Coop, 2004; De Pelsmacker et al. 2003).[12]

Secondly, the debate regarding the contribution of this initiative to the producers' well-being and the observance of FT criteria needs to be brought, not only on theoretical, but also on empirical grounds. The socially responsible characteristics, which are one of the leading competitive factors of FT, are not an "experience good" and, given the asymmetrical information between sellers and buyers on this issue, rigorous empirical analyses are required to evaluate whether the FT promises are kept and do not create distortions or negative externalities.

Thirdly, it has been shown that FT impact analyses may contribute to a redefinition of the same FT criteria. In the econometric study on the impact of FT on Kenyan farmers, Becchetti and Costantino (2008) show that product risk diversification (an element not included in official

more expensive air ticket, in which the price differential with respect to the standard one was used to finance the CO_2 reduction policies of the air company.

[12] Virtual willingness to pay tends to be higher than the revealed one since the virtual choice between a FT and a standard product is easier than in real life, due to the absence of differences in availability of the two types of products and the interviewed consumers' lack of asymmetrical information regarding the ethical characteristics of the FT product.

criteria) is one of the main sources of benefits for local affiliated producers. An empirical analysis on Peruvian producers (Becchetti et al., 2007) shows that affiliation has a significant effect on professional self-esteem and life satisfaction (neither of these are considered among FT criteria). Combined results from these two studies also show that, even though FT does not ban child labour products, affiliation leads to a reduction of child labour and an increase in schooling for producers above a minimum standard of living threshold (around $3 per day in PPP), but not for those below it.

In the light of what has been considered above, the goal of our research is to produce new evidence for this debate by testing a still unexplored potential FT effect: the impact on producers' social capital in the form of trust in institutions, trade unions and political parties.

The decision to analyse this specific dimension of generalised trust stems from three main reasons. Firstly, the instability of the actual political and institutional situation in Kenya, amplified by ethnic fragmentation, [13] does not help to solve its economic difficulties. In this environment of social divergence and conflict, fairness and higher institutions' credibility, as well as the state-society synergy, may notably help to create virtuous cycles of social capital accumulation, in the form of institutional and generalised trust. Moreover, norms and trust may help to discourage opportunistic behaviour and support economic growth and sustainable development.[14]

Secondly, a considerable number of empirical studies link social capital accumulation to the effects of institutional or systemic factors (e.g. confidence in the institutions and politics, public spirit, cooperation, etc). [15]

---

13 See, among others, Alesina, Baquir, and Easterly (1999); Alesina and La Ferrara (2000); Goldin and Katz (1999) and Fox (1996).

14 "*In the absence of trust [..] opportunities for mutually beneficial cooperation would have to be forgone [..] norms of social behaviour […could be] reactions of society to compensate for market failures*" (Arrow 1971, 22)

15 According to Putnam (1993), the level of trust within communities increases cooperation which, in turn, raises generalised trust. In their works, Rothstein and Stolle (2001) similarly to Levi (1996), indicate fairness and credibility of governments as key determinants of generalised interpersonal trust.

Lastly, current literature tends to investigate trust and cooperation instead of group membership,[16] as a measure of social capital. Empirical results do not always confirm the statistically significant impact of group membership on societies and economies, besides the fact that this measure may overestimate the stock of social capital by including passive forms of association and organised groups too.[17]

3. The survey design

The entity which gave birth to the Meru Herbs commercial organisation (created in 1991) is an association of farmers (Ng'uuru Gakirwe Water Committee) [18] that created it in order to raise income through the commercialisation of food products and thus be able to afford the canalisation of the Kitcheno River. The irrigation project was a successful infrastructural intervention in the area and provided water to local houses and farms, increased fertility and the value of lands and reduced the time spent (mainly by women and children) getting access to water sources.

Since the very beginning, the commercialisation of food products was carried out through fair trade channels as an experimental partnership built up between Meru Herbs and the leading Italian Fair Trade importer (CTM).

Meru Herbs intended to reduce the monopsonistic power of Nairobi traders (who normally controlled the commercialisation of products in the region) and facilitate the creation of new trade opportunities in order to develop the economy of the local area.

---

16 Using WVS data from 1990 to 1996, Delhey and Newton (2005) focus on generalised trust at a micro level, while Alesina and La Ferrara (2000), as well as Soroka et al. (2003), investigate generalised trust at a macro level. Among others, the same variable has been investigated by Bartkowski and Jasińska-Kania (2004), Halman and Luijkx (2006), van Oorschot and Arts (2005, 2006) on European data.

17 See e.g. Knack and Keefer (1997).

18 The Committee was set up by 430 families living in various plots (10 to 40 acres) which had been granted by the Kenyan Government in the 1960s. The plots are located in the districts of Meru Central and Tharaka, 200 km from Nairobi, on Mount Kenya's eastern slopes.

The organisation achieved an organic certification from the British Company Soil Association Certification Ltd. in the year 2000 and today it exports 97 percent of net sales through fair trade organisations.[19]

The relationship between producers and the organisation is such that farmers who obtain an organic certification (or are in the process of obtaining it) – by signing an affiliation contract with Meru Herbs - agree to sell part of their production[20] to the cooperative in exchange of benefits, services and technical assistance from the organisation.[21]

The overlap between the use of FT channels to export and the characteristics of the first level producer association Meru Herbs, does not allow the separation of FT activity from Meru Herbs effects. In fact, both these aspects are part of a unique integrated project.

Our research in the socio-economic environment described above was developed according to the following timetable: i) 1st February 2005 – Meru Herbs, Nairobi office: beginning of the research; ii) 2nd – 11th February 2005 – Meru Herbs Base Camp: community analysis and provisional questionnaire checking; iii) 12th – 20th February 2005 – Meru Herbs, Nairobi office: data collection for the indirect impact study; iv) 21st of February – 15th March 2005 – Meru Herbs Base Camp: interviews using questionnaires (direct impact study); v) 15th – 18th March 2005 – Meru Herbs, Nairobi office: end of the research.

Our reference population is composed of 474 farmers who benefited from the irrigation project. The characteristics of this population led us to classify the farmers into four groups (Bio,

19 In particular, Meru Herbs exports to the Italian market through Consorzio altromercato (CTM) and Equo Mercato (CEM), and in Japan through People Tree. The CTM channel accounts for 80 percent of total Meru Herbs exports.

20 The relation between the organisation and affiliated farmers is not exclusive since they also sell no less than 40 percent of their production locally (directly to customers and local intermediaries).

21 More specifically, Meru Herbs: i) provides complimentary seeds and organic fertilisers to farmers; ii) sells them fruit trees for production at subsidised prices; iii) organises complimentary training courses in the implementation of organic farming techniques, and iv) offers Farmer manager and Vice-manager services to their affiliated farmers with the specific task of supervising and providing technical assistance.

Conversion, Onlyfruit and Control farmers). Bio farmers are long-term affiliated ones (with more than 10-year affiliation) with biological certification on their production. Conversion farmers are those that have been affiliated for not more than two years and are undergoing the process of conversion to biological production. Onlyfruit farmers are local non-affiliated farmers that have trade relationships with Meru Herbs (Table 1); more specifically, they sell fruits to the association in order to help increase its economies of scale in distribution and to fill its containers of products sold to Fair Trade organisations. As non-members having commercial relationships with fair trade importers, they enjoy the price premium but not the specific fair trade effects generated by the support of importers to the Meru Herbs association.[22]

The fourth (Control) group is composed of farmers living in the same area with no relationship with Meru Herbs and fair trade.

In this respect, an important advantage of our data is the homogeneity between treatment and control groups who live in the same geographical area and share the same benefits arising from the irrigation project (higher land value, less time spent for access to water sources, improved yields, etc.). From the universe of the 474 farmers we therefore randomly extract an equal number of sample components from each of the four groups. Descriptive features of our sample are documented in the next section.

4. Descriptive findings

A first important characteristic of our data is the relationship between years of affiliation and affiliation to the four (Bio, Conversion, Onlyfruit and Control) groups.

As expected, a quarter of the respondents is from the Control sample and therefore has 0 affiliation years. With regard to affiliated individuals, we find that a large part of the responses are

[22] As in almost all fair trade relationships, part of the fair trade monetary benefit is directly paid to producers, while part of it is paid to Meru Herbs to finance the association services to affiliates.

concentrated around the lowest and highest level of non-zero affiliation years (33.33 percent with 1 year and 21.67 percent with 14 years) (Table 2).

For this reason, in our descriptive findings, we look at average values of trust and affiliation indexes for three categories (0 affiliation, from 1 to 5 affiliation years, more than 5 affiliation years) knowing in advance that the second group will be composed mainly of respondents with 1 affiliation year, while the third group of respondents with the maximum number of affiliation years.

To sum up, the interaction between the latter classification and the four group taxonomy shows that we can completely include the Control group in the "no affiliation" category, while roughly 97 percent of the Bio group falls into the "more than 6 years" group (87 percent of Bio farmers have been affiliated for 14 years). As expected, Onlyfruit and Conversion farmers are found in the remaining "1 to 6 years" category (intermediate members from now on).

The groups considered are quite heterogeneous as far as demographic features are concerned.[23]

Bio farmers, located in the maximum duration of affiliation category (long-term members from now on) and in the "1 to 6 years" one, reveal quite similar patterns in age and average monthly earnings: they are (ten years) older, (two and a half years) less educated, and have larger families (one child more on average) than the Control group (with zero affiliation years) (Table 5). They also exhibit the greatest average household monthly earnings among the groups, while the intermediate members, which represent the majority of the observations, have the highest number of schooling years in the sample (Table 4).

Control farmers exhibit the lowest average household monthly earnings among the four groups. However, their families are smaller and, when we equivalise incomes,[24] we find that the

[23] Selected variable legend is in Table 3, while summary descriptive statistics for the same variables are provided in Table 4.

[24] The standard OECD rule used to scale earnings for family size is to divide household income by a scale factor A, where $A = 1 + 0.5\ (N_{adults} - 1) + 0.3\ N_{children}$. However, larger weights are generally used in development studies considering that large part of consumption is food consumption for which economies of scale in the number of members are very limited. We therefore follow the standard suggestion in such cases of giving unit weights to each

differences among the four groups tend to narrow. Becchetti and Costantino (2008) looked into the Meru Herbs project to ascertain whether it complies with fair trade criteria (Table 5). They found that one main difference is that affiliated farmers enjoy the benefits of higher product diversification, with an average number of products cultivated and sold equal to 8.8 for Bio farmers, against 4 of the Control group. More specifically, FT, in cooperation with Meru Herbs, has introduced four new products (mango, karkade, guava and lemon) which are cultivated only by affiliated farmers.[25] The price premium may be verified on the only product (*pilipili*, the Swahili word for red pepper) which is sold both locally and in the fair trade channel, with the price being almost three times higher in the latter. Moreover, affiliated farmers register a significant difference in technical assistance (enjoyed by 100 percent of affiliated against 33 percent of non-affiliated).[26] Becchetti and Costantino (2008) conclude that the combination of higher technical assistance and product diversification reduces the farmers' risk and generates higher price and income satisfaction.

4.1 Descriptive findings on social capital indicators

A first relevant descriptive finding on social capital indicators is that affiliation is significantly correlated with a higher participation in political voting (Table 6). Electoral turnout is 93 percent for respondents with more than 6 years of affiliation, 86 percent for those in the intermediate group

member (for a discussion of the methodological problems in creating equivalence scales see Deaton and Paxson, 1998).

[25] Consider that karkade is new for Kenya (it comes from Sudan) and was introduced for the first time by Fair Trade organisations. Moreover, since 2006 (after our survey, carried out in 2005) FT importers have introduced additional products such as passion fruit and bananas, as well as onions, tomatoes and garlic for the preparation of sauces.

[26] For the specific characteristics of Meru Herbs technical assistance see footnote 20.

and 69 percent for the control group. The difference between the first and the third group is 24 percent.

Affiliation years also seem to affect trust in trade unions, political parties and the government. The share of those with the lowest confidence in trade unions is 25 percent among long term FT members, 30 percent among intermediate members and 38 percent among control respondents. 59 percent of non-members have a total lack of confidence in political parties, against 56 percent of intermediate members and 47 percent of long-term members. When we look at the maximum lack of confidence in the government, the respective numbers are 10 percent, 13 percent and 3 percent.

Descriptive evidence therefore seems to show a positive correlation between FT affiliation and a specific form of generalised trust (in institutions such as the government, trade unions and political parties) which needs to be verified with econometric analysis

5. Econometric specification

Descriptive evidence on the correlation between affiliation years and indicators of trust can be affected by various composition effects. As it has already been mentioned, farmers belonging to the Bio group tend to be older and less educated than those in the other three groups (Conversion, Onlyfruit and Control). If education may be thought as being positively correlated with trust (hence the affiliation year effect may be even larger after verifying the schooling years), age is expected to be positively correlated as well (in this case the affiliation year effect could be overestimated). In addition to this, heterogeneity in ethnic group, religion, gender, income and wealth among sample respondents may also affect the above-mentioned descriptive findings.

This is one of the main reasons that led us to present econometric estimates on the trust-affiliation relationship.

More specifically, we looked at the impact of affiliation years on the probability of falling into the lowest category of trust (no trust at all) in the government, political parties and trade unions. The

rationale for looking at this specific variable is that people exhibiting the lowest level of trust are most likely to fuel social unrest and the kind of problems which we saw exploding after our survey in Kenya.

More in detail, we use the following specification with a logit estimate

$$Trust_i = \alpha_0 + \alpha_1 \text{ Workyear} + \alpha_2 \text{ Onlyfruit} + \alpha_3 \text{ Sons} + \alpha_4 \text{ Man} + \alpha_5 \text{ Catholic} + \alpha_6 \text{ Education} + \alpha_7 \text{ Totalincome} + \alpha_8 \text{ Investineducation} + \alpha_9 \text{ Age} + \alpha_{10} \text{ Mainactagr} + \alpha_{11} \text{ Durablerecbought} + \alpha_{12} \text{ Dietary} + v_i \quad [1]$$

in which $Trust_i$ is a dichotomous variable taking the value of 1 for those who respond that they have no trust at all in a given institution (political parties, government and trade unions) and 0 otherwise. *Workyear* is the number of years of trade relationship with Meru Herbs, *Onlyfruit* is a dummy taking a value of 1 if the respondent belongs to that group,[27] *Man* and *Catholic* are respectively, gender and religion dummies, *Education* is the total number of schooling years of the respondent, *Totalincome* is the sum of incomes from all working activities, *Investineducation* is a variable measuring the intensity of the respondent's investment in the education of his children, *age* is the respondent's age, *Mainactivity* is a dummy taking the value of 1 if the respondent's main activity is agriculture, *Durablerecbought* is the number of durable goods purchased by the respondent in the last two years (a proxy of wealth) and *Dietary* is an indicator of the richness of the respondent's diet. In our survey we have information about the frequency of consumption (more than once a day, once a day, once every three days, once a week, rarely, never) of the following food items: *ugali, chapati, rice, maize, beans, eggs, milk, chicken, other meat, fish, potatoes, greens, fresh fruit.* On this basis we build an index of dietary quality giving descending

[27] Given the particular status of Onlyfruit farmers, the variable helps to discriminate between years of Meru Herbs affiliation and years of trade relationships.

values (from a maximum of 5 to a minimum of 1) to the above-mentioned frequency modalities. Finally, we calculate our synthetic index as an average of the values given to each food item.

We use *dietary* as an additional proxy of individual well-being since income may be an inadequate indicator of the latter as far as poor farmers are concerned because subsistence farming contributes significantly to their household resources.

Our choice of covariates is based on results and specifications typical of this literature.

Among all the variables considered, income, education and age appear to be the most influential. Higher levels of income and education seem to increase the probability of creating trust, while income inequality within the population may build generalised distrust towards society. [28]

Effects are not so clear and uniform when considering institutional trust specifically. Education for instance, is shown to affect it in both positive and negative directions.[29] Moreover, the effect of education is difficult to quantify since it may also influence trust through non-economic channels generating a self-reinforcing process. [30]

With regard to age, we may intuitively state that older people are more cooperative and trusting, but, again, empirical results do not show homogeneous results. Most empirical papers find a positive impact of age on general and institutional trust.[31]

An alternative point of view assumes a concave relationship between social capital and age: getting older first increases and later decreases social capital. Glaeser et al. (2002), show that social capital investment declines monotonically with ageing.

---

28 On this point see Knack and Keefer (1997), Costa and Kahn (2001), Helliwell and Putnam (1999), Paldam (2000) and Denny (2003).

29 See, respectively, Halman and Luijkx (2006) and Oorschot et al. (2005).

30 Education "may help to create a climate of trust that is self-reinforcing" (Helliwell and Putnam 1999: 5).

31 See van Oorschot et al (2005); Whiteley (1999); Halman and Luijkx (2006).

5.1 Econometric findings

Results on our first estimate (Table 7, column 1) show that affiliation significantly contributes to reducing the probability of falling into the lowest category of trust in the government. The effect of affiliation to FT channels is quantitatively weak since 3 years of relationship reduce the probability of falling in the lowest trust category by only 1 percent. A similar effect, in terms of sign, but with a greater magnitude, is determined by the variable that accounts for the main activity in which the respondent is working. Agriculture, being the first activity, reduces by 10.51 percent the probability of distrusting government institutions (the significance is only 90 percent).

Although it has quite negligible quantitative effects, the other variable to be noted is the respondents' age. Being 12 years older raises the odds of falling into the highest distrust category by 1 percent. Since the majority of the observations in our sample is represented by the intermediate members with quite a high average age (around 45 years), we interpret this result in the light of the Gleaser (2002) point of view. The majority of observations in fact, may lie on the descending curve of the concave relation between social capital and age.[32]

Another statistically significant effect is played by the Catholic religion that seems to be positively related to government distrust (being Catholic raises by 3.7 percent the likelihood of not trusting the government at all). This result is consistent with the argumentations of Putnam (1993) and La Porta et al (1997) who believe that dominant hierarchical religions like, for instance, Catholic or Orthodox Christian, lower trust.

Results on the effects of the affiliation variable on trust in political parties and trade unions are equally significant but stronger. Three additional years of affiliation reduce the probability of falling into the lowest trust category by 15 and 12 percent respectively (Table 7, columns 2 & 3). As far as confidence in political parties is concerned, we can confirm the positive direction of the

[32] We tried a non-linear specification with age and age squared but the specification is not significant. Results are omitted for reasons of space and available upon request.

impact of age, albeit with more powerful effects (every 12 years, odds of falling in the highest distrust category increase up to 22 percent) (Table 7, columns 2).

Finally, we observe that neither current incomes nor dietary and consumer durables show statistically significant results. The difference in wealth within the community seems unable to explain trust in institutions, political parties and trade unions. The same consideration applies for variables which account for the level and importance of education (schooling years and investment in education).

5.1 Controlling for the selection bias effect

In empirical analyses like ours, the significant link observed between affiliation to a given group and the performance indicator does not necessarily imply that the relationship has been determined by the effect of affiliation. In fact it may be that the performance differential between treatment and control groups are pre-existent at the moment of affiliation (selection bias). The selection bias may be explicit (determined by the group admittance rules) or implicit (ex ante characteristics are correlated both with the decision to associate and with the performance indicator).[33] In our case a phenomenon of implicit selection would arise if individuals with greater trust in institutions had a higher propensity to enter Meru Herbs. In order to control for selection bias we estimate a treatment regression model in which the relationship between affiliation length and performance is controlled for the characteristics of those who are part of Meru Herbs.

The treatment regression model includes the following two equations:

$$Trust_i = \alpha_0 + \alpha_1 \, Workyear + \alpha_2 \, Onlyfruit + \alpha_3 \, Sons + \alpha_4 \, Man + \alpha_5 \, Catholic + \alpha_6 \, Education +$$

$$\alpha_7 \, Totalincome + \alpha_8 \, Investineducation + \alpha_9 \, Age + \alpha_{10} \, Mainactagr + \alpha_{11} \, Durablerecbought +$$

[33] Note that the selection bias effect and the positive contribution of Fair Trade to producers' well-being are not mutually exclusive. By setting high product quality and social standards for members' access to the cooperative, Fair Trade may contribute positively to pre-entry improvement of social and economic indicators.

α_{12} Dietary + v_i

[2.1]

$$Control_i = \beta_0 + \beta_1 \text{ Education} + \beta_2 \text{ Age} + \beta_3 \text{ Sons} + \beta_4 \text{ Peopleinhouse} + \beta_5 \text{ Totalincome } z_i$$

[2.2]

In the two-equation system (v) and (z) are bivariate normal random variables with zero mean and a covariance matrix $\begin{bmatrix} \sigma & \rho \\ \rho & 1 \end{bmatrix}$. The likelihood function for the joint estimation of [2.1] and [2.2] is provided by Maddala (1983) and Greene (2003).

Since the treatment regression model requires a continuous dependent variable we build an (almost continuous) weighted index of the responses given to the three questions on trust in government, trade unions and political parties.

Empirical findings (Table column 4) show that the effect of affiliation years is strongly significant on the aggregate generalised trust variable after controlling for the selection bias.

6. Conclusions

Fair trade organisations have tried to make the socially and environmentally responsible content of their value chain explicit in a list of official criteria. Beyond the myth, fair trade creates links with "socially responsible" producers' associations or cooperatives rather than directly with individual farmers. This occurs with the creation of a long term relationship in which fair trade importers provide a series of benefits, both directly to producers and indirectly to their cooperative or association, in order to promote capacity building and inclusion of the former into the market. From these specific characteristics it may be inferred that an additional effect of fair trade is that of fostering investment in social capital of affiliated producers, by indirectly promoting their attitude to associate and cooperate. It must be considered, however, that the promotion of the attitude to

cooperate does not necessarily generate positive effects in terms of generalised social capital. Only if associations have “bridging”, and not just “bonding” characteristics, social capital may be beneficial at the aggregate level.

In this paper we investigate this issue by looking at the effects of affiliation years on some specific “generalised” social capital indicators such as trust in the government, political parties and trade unions.

Our findings show that affiliation matters for all three of these indicators, net of the impact of all other relevant controls and of the implicit selection bias which may arise in this type of organisation.

We believe that our results are particularly interesting for the reasons explained below. The recent econometric literature has increasingly shown that, beyond the apparent part of the standard economic indicators (labour and capital inputs, productivity, prices and output), there is a fundamental hidden part made by intangible inputs (such as social capital) which are crucial in determining some of the visible ones (i.e. workers’ productivity). Hence, the investigation of the determinants of such invisible components is fundamental to understand economic performance at a micro and macro level. The recent literature on development emphasizes the importance of such factors even more, by considering social capital and social cohesion as the crucial weak points that explain the failures of development policies in Sub-Saharan countries (Easterlin et al., 2000).

In this respect, we consider our results especially relevant in that they reveal the existence of a virtuous link between a specific form of trade and consumption and the development of social capital in Kenya some years before the explosion of social unrest which tragically evidenced the limits of trust in institutions in this country (and, with it, the belief that a political crisis could be solved in a peaceful way).

The implicit policy suggestion of this paper is therefore that there can be precious synergies between development policies at country level and “bottom up” initiatives at micro level which

promote the creation of social cohesion and social capital in order to jointly affect material and economic conditions and beneficiaries' trust in local institutions.

References

Alesina A., Baqir R., Easterly W. (1997). *Public Goods and Ethnic Divisions*. The Quarterly Journal of Economics, 114(4): 1243-1284;

Alesina A., Ferrara E. (2000). *The Determinant of Trust*. NBER Working Paper 7621;

Arrow K. (1971). *Political and Economic Evaluation of Social Effects and Externalities*. In Frontiers of Quantitative Economics. M. Intriligator;

Arrow K. (1974). *The Limits of Organization*. Norton, New York, p. 217;

Arts W., Halman L. (2004). *European Values at the Turn of the Millennium*. Brill, Leiden.

Arts W., van Oorshot W. (2005). *Social Capital of European Welfare States: the Crowding Out Hypothesis Revisited*. Journalof European Social Policy, 15(1): 5–26;

Arts W., van Oorshot W., Gelissen J. (2006). *Social Capital in Europe: Measurement, and Social and Regional Distribution of a multi-faceted phenomenon*. CCWS Working Paper 44, Aalborg University;

Bacon C. (2005). *Confronting the Coffee Crisis: Can Fair Trade, Organic, and Specialty Coffees Reduce Small-Scale Farmer Vulnerability in Northern Nicaragua?* World Development, Oxford 33(3): 497-511;

Barro R. J. (1998). *Determinants of Economic Growth: A Cross-Country Empirical Study*. The Economic Journal 108(450): 1607-1609;

Bartkowsky J., Jasińska-Kania A. (2004).*Voluntary Organizations and the Development of Civil Society*. In Arts, W. and Halman L. (2004). *European Values at the Turn of the Millennium*. Brill, Leiden, pp. 109-138.

Becchetti L., Costantino M. (2008). *Fair Trade on marginalized producers: an impact analysis on Kenyan farmers*, working paper, World Development Vol. 36, No. 5, pp. 823–842.

Becchetti L. Costantino M. Portale E., (2007). Human capital, externalities and tourism: three unexplored sides of the impact of FT affiliation on primary producers, CEIS working paper n. 262

Becchetti L., Huybrechts B. (2008). *The dynamics of Fair Trade as a mixed-form market*. CEIS working paper, Journal of Business Ethics, (forth.);

Becchetti L., Rosati F. (2007), *Globalisation and the death of distance in social preferences and inequity aversion: empirical evidence from a pilot study on fair trade consumers.* The World Economy 30 (5): 807-30;

Becchetti L., Trovato G. (2005). *The determinants of child labour: the role of primary product specialization*. Labour 19(2): 237-271;

Becchetti L., Solferino N. (2008). *On ethical product differentiation*, Economia e Politica Industriale, (forth.);

Becchetti L., Pace N. (2006). *The Valorization of Human Capital as a Key Element of Competitiveness: The Trust Game Corporation Perspective*, Corporate Social Responsibility (CSR) Paper 4;

Berggren N., Jordahl H. (2006). *Free to Trust: Economic Freedom and Social Capital*. Kyklos, 59(2): 141-169;

Bird, K. and D. Hughes (1997). *Ethical Consumerism: The Case of "Fairly-traded" Coffee*, Business Ethics: A European Review, 6(3):159–67;

Brown L.D., Ashman D., (1996). *Participation, social capital and intersectoral problem solving, African and Asian cases.* World Development 24(6): 1467-79;

Castro J.E. (2001a). *Impact assessment of Oxfam's fair trade activities. The case of Productores de miel Flor de Campanilla*. Oxford: Oxfam.

Castro J.E. (2001b). *Impact assessment of Oxfam's fair trade activities. The case of COPAVIC*. Oxford: Oxfam;

Coleman J. S. (1988). S*ocial capital in the creation of human capital*. American Journal of Sociology, 94(S1): 95 – 120;

Costa D. L., Kahn M. E., (2003). *Understanding the decline in social capital.* 1952-1998, Kyklos, 56: 17-46;

Deaton A., Paxson C. (1998). *Economies of Scale, Household Size and the Demand for Food.* Journal of Political Economy 106(5): 897-930;

Delhey J., Newton K. (2005). *Predicting Cross-National Levels of Social Trust: Global Patterns or Nordic Exceptionalism*. European Sociological Review 21(4): 311–327;

Demos & Pi/Coop (2004). Osservatorio sul Capitale sociale Virtù e valori degli italiani, Indagine;

Denny K. (2003). *The Effects of Human Capital on Social Capital: A Cross-Country Analysis*. The Institute for Fiscal Studies Working Paper 16;

De Pelsmacker P., Driesen L., Rayp G. (2003). *Are Fair Trade Labels Good Business? Ethics and Coffee Buying Intentions*. Working Paper (University of Ghent);

Easterly W. (2000). *Can institutions resolve ethnic conflict?*. Economic Development and Cultural Change, 49(4):687-706;

Easterly W., Levine R. (1997). *Africa's growth tragedy: Policies and Ethnic divisions*. Quarterly Journal of Economics CXII(4): 1203-1250;

Easterly W., Ritzen J., Woolcock M. (2000). *On 'good' politicians and 'bad'policies: social cohesion, institutions, and growth*. Policy Research Working Paper 2448, World Bank, Washington DC;

Fair Trade Advocacy Office (2005a). Fair Trade rules!
URL=<http://www.ifat.org/downloads/advocacy/FairTradeRules_oct%202005.pdf>. Brussels;

Fair Trade Advocacy Office (2005b). Fair Trade in Europe (2005). URL=<http://www.fairtrade.net/uploads/media/FairTradeinEurope2005.pdf>. Brussels;

Fox J. (1996). *How Does Civil Society Thicken? The Political Construction of Social Capital in Rural Mexico*. World Development 24(6):1089-1103;

Fullenkamp C., Chami R. (2002). *Trust as a means of improving corporate governance and efficiency*. IMF Working Paper, WP/02/33, International Monetary Found February

Glaeser E. L., La Porta R., Florencio Lopez-de-Silane and Andrei Shleifer (2004). *Do Institutions Cause Growth?* Journal of Economic Growth, Springer, 9(3): 271-303, 09;

Glaeser E. L., Laibson D., Sacerdote B. (2002). *The Economic Approach to Social Capital*. The Economic Journal 112: F437–F458;

Greene W. H. (2003). *Econometric Analysis: 5th ed.* Upper Saddle River, NJ: Prentice-Hall;

Gradstein M., Justman M. (2002). *Education, Social Cohesion and Economic Growth*. The American Economic Review, 92(4): 1192-1204(13);

Gradstein M. (2003). *The Political Economy of Public Spending on Education, Inequality, and Growth*. World Bank Policy Research Working Paper 3162;

Halman L., Luijkx R. (2006). *Social Capital in Contemporary Europe: Evidence from the European Social Survey*. Portuguese Journal of Social Science 5(1):65–90;

Hayes M. (2004). *Strategic management implication of the ethical consumer*. URL=<http://www.fairtraderesearch.org>;

Helliwell J. F., Putnam R. D. (1999). *Education and Social Capital*. NBER Working Paper Series, No. 7121;

Hirsch F. (1976). *Social Limits to Growth.* A Twentieth Century Fund Study, Cambridge, Mass. And London, England, Harvard University Press;

Hulme D., Mosley P. (1996). *Finance against poverty*, Vol I- II, Routledge, London & New York.

Knack S., Keefer P. (1997). *Does Social Capital Have an Economic Payoff? A Cross-Country Investigation*. Quarterly Journal of Economics 112(4):1251-1288;

Knack S., Zak P. J. (2001). *Building Trust: Public Policy, Interpersonal Trust, and Economic Development*. Supreme Court Economic Review (Forth.);

Krishna A., Uphoff N. (1999). *Mapping and Measuring Social Capital: A Conceptual and Empirical Study of Collective Action for Conserving and Developing Watersheds in Rajasthan, India* Social Capital Initiative Project, Working Paper 13, The World Bank

La Porta R., Lopez-de-Silanes F., Shleifer A., Vishny R. (1997). *Trust in Large Organizations*. American Economic Review Papers and Proceedings, 87(2): 333–338;

La Porta R., Lopez de Silanes F., A. Shleifer, Vishny R. (1999). *The Quality of Government*. Journal of Law, Economics and Organization 15 (1): 222-79;

Leclair M. S. (2002). *Fighting the tide: Alternative trade organizations in the era of global free trade*. World Development 30(7): 1099–1122;

Levi M. (1996). *Social and Unsocial Capital: A Review Essay of Robert Putnam's Making Democracy Work*. Politics & Society 24(1): 45-55;

Maddala G. S. (1983). *Limited-dependent and qualitative variables in econometrics.* Cambridge: Cambridge University Press;

Maseland R., De Vaal A. (2002). *How Fair is Fair Trade?* De Economist 150(3): 251-272;

Montalvo J. G., M. Reynal-Querol (2005a). *Ethnic polarization, potential conflict and civil wars*. American Economic Review 95 (3): 796-816;

Montalvo J. G., M. Reynal-Querol (2005b). *Ethnic Diversity and Economic Development.* Journal of Development Economics, 76: 293-323;

Moore G. (2004). *The Fair Trade Movement: parameters, issues and future research.* Journal of Business Ethics 53(1-2): 73-86;

Olson M. (1971), *The Logic of Collective Action: Public Goods and the Theory of Groups*. Cambridge: Harvard University Press;

Ostrom E. (2000). *Collective Action and the Evolution of Social Norms*. The Journal of Economic Perspectives 14 (3): 137-158;

Paldam M. (2000). *Social Capital: One or Many? Definition and Measurement*. Journal of Economic Surveys 14(5): 629–653;

Pariente W. (2000). *The impact of fair trade on a coffee cooperative in Costa Rica. A producers behaviour approach.* Université Paris I Panthéon Sorbonne;

Polanyi K. (1944). *The Great Transformation: The Political and Economic Origins of Our Time.* Beacon Press: Boston;

Putnam R. D. (1993). *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, New Jersey: Princeton University Press.

Redfern A., Snedker P. (2002). *Creating market opportunities for small enterprises: experiences of the fair trade movement*. ILO, Geneva.

Rose R. (2000). *Getting things done in antimodern society: Social capital networks in Russia,* in *Social Capital: A Multifaceted Perspective*. Ed. Dasgupta and Serageldin, The World Bank;

Rothstein B., Stolle D. (2003). *Social Capital, Impartiality, and the Welfare State: An Institutional Approach*. In M.Hooghe and D. Stolle (eds.) *Generating Social Capital*, Palgrave, pp. 141–156.

Schiff M. (1999). *Labor Market Integration in the Presence of Social Capital*. World Bank Policy Research Working Paper 222, Washington, DC, The World Bank;

Soroka S. N., Helliwell J. F., Johnston R. (2003). *Measuring and Modelling Trust*. In Kay F. and Johnston R. (eds) *Diversity, Social Capital and the Welfare State*. Vancouver, BC. University of British Columbia Press.

Stolle D., Rochon T. R. (1998). *Are all associations alike? Member diversity, associational type, and the creation of social capital*. American Behavioral Scientist 42: 47–65;

Whiteley P. (1999). *The Origins of Social Capital*. In Van Deth J.W., Maraffi M., Whiteley P. (eds), *Social Capital and European Democracy*. London, Routledge, pp. 25–44.

Table 1. Characteristics of the four sample groups

	Bio farmers	Conversion farmers	Onlyfruit farmers	Control farmers
Have you signed a contract with MERU?	YES	YES	NO	NO
Are you organic farmers ?	YES	CONVERTING TO	NO	NO
Share of products sold to Meru	60	55	38	0
Do you sell fruits to Meru?	YES	YES	YES	NO
Do you receive services from Meru*?	YES	YES	NO	NO
Do you receive benefits from FT ?	YES**	YES**	YES**	NO
Average years of trade relationship with the Meru organisation***	13.3	1.1	2.8	0

Group legend: *Bio*: certified organic farmers with long-term affiliation to Meru Herbs and access to FT export channels. *Conversion*: Meru Herbs members of recent affiliation undergoing conversion towards organic certification. *Onlyfruit*: non-affiliated farmers selling fruit to Meru Herbs. *Control*: farmers with no commercial relationship with Meru or FT who share the same productive environment and advantages of the local irrigation infrastructure with affiliated farmers.

* Complimentary seeds and organic fertiliser to organic farmers; ii) sale of trees for production at subsidised prices; iii) complimentary formation courses for the implementation of organic farming techniques and iv) engagement of one of Meru employees (the Farmer manager) to the task of supervising and providing technical assistance to the affiliated farmers.

** Product diversification, price stabilisation and price premium in proportion to the amount sold to Meru Herbs.

*** Years of affiliation for Bio and Conversion farmers, years of trade relationship for Onlyfruit farmers.

Source: Becchetti and Gianfreda (2008)

Table 2. Years of affiliation to the project

Categories	Years of affiliation	Bio	Conversion	Onlyfruit	Control	Tot ***	Tot Cum ***
0 years	0	-	-	-	100.00	25.00	25.00
	1	-	93.33	40.00	-	33.33	58.33
	2	-	6.67	13.33	-	5.00	63.33
from 1 to 6	3	-	-	30.00	-	7.50	70.83
years	4	3.33	-	6.67	-	2.50	73.33
	9	3.33	-	6.67	-	2.50	75.83
	10	3.33	-	-	-	0.83	76.67
	11	-	-	3.33	-	0.83	77.50
more than 6	13	3.33	-	-	-	0.83	78.33
years	14	86.67	-	-	-	21.67	100.00
	N. of Respondents	**30**	**30**	**30**	**30**	**120**	

Group legend (see group legend in Table 1).

** N. of group components

*** Percent and Cumulative percent values of affiliation of the whole sample.

Table 3. Variable legend

WORKYEAR	Number of years the respondents have been affiliated to the project
MAN	Dummy takes the value of 1 if the respondent is a man and 0 otherwise
CATHOLIC	Dummy takes the value of 1 if the respondent is Catholic and 0 otherwise
EDUCATION	Number of schooling years
TOTALINCOME	Sum of the respondents' income both from main and second activity
INVESTINEDUCATION	Variable measuring intensity of the respondent's investment in sons' education
SONS	Number of the respondent's sons
AGE	Respondent's age
KIKUYU	Dummy takes the value of 1 if the respondent is affiliated to the Kikuyu ethnic group
MARRIED	Dummy takes the value of 1 if the respondent is married and 0 otherwise
MAINACTAGR	Dummy takes the value of 1 if agriculture is the respondents' main activity and 0 otherwise
DURABLERECBOUGHT	Sum of durables bought during the previous two years
DIETARY	Average consumption frequency of the following food items: ugali. chapati. rice. maize. beans. eggs. milk. chicken. other meat. fish. potatoes. greens. fresh fruit in which descending values (from a maximum of 5 to a minimum of 1) have been given to the following modalities of consumption (more than once a day, once a day, once every three days, once a week, rarely, never)
VOTELASTELECTION	Dummy takes the value of 1 if the respondent voted in the last year election
TRUSTGOVNOT	Dummy takes the value of 1 if the respondent does not trust the government and 0 otherwise
TRUSTPARTYNOT	Dummy takes the value of 1 if the respondent does not trust political parties and 0 otherwise
TRUSTUNIONNOT	Dummy takes the value of 1 if the respondent does not trust unions and 0 otherwise
TRUSTPARTY	Answer to the question: do you trust political parties? very much=3, quite a lot=2, a little=1, not at all=0
TRUSTGOV	Answer to the question: do you trust the government? very much=3, quite a lot=2, a little=1, not at all=0
TRUSTUNION	Answer to the question: do you trust trade unions? very much=3, quite a lot=2, a little=1, not at all=0

Table 4. Basic characteristics of the three categories of affiliation considered

	Total sample		**No affiliation**		**1-6 year affiliation**		**more than 6 year affiliation**	
Variable	**Mean**	**Std Dev**	**Mean**	**Std Dev**	**Mean**	**Std Dev**	**Mean**	**Std Dev**
Equivalised monthly earnings**	2048.831	8685.59	764.0341	922.13	1416.935	1669.044	4410.491	16853.01
Schooling years	5.84	5.16	6.32	5.24	6.69	5.34	3.69	4.18
Age	43.99	14.71	37.83	14.77	44.64	14.47	48.38	13.62
No. of children	2.79	2.83	1.93	2.20	2.96	2.65	3.24	3.53
Hectares	6.01	10.74	6.93	8.82	3.78	1.08	9.28	1.15
Employees hired in harvesting season	1.65	2.39	.733	1.048	1.90	2.94	1.38	1.63

* In Kenyan Shillings.
** Household monthly earnings scaled by the number of family members. Proxy of equivalized monthly earnings

Table 5. Descriptive statistics of basic variables used

Variable	Obs	Mean	Std.Dev.	Min	Max
Workyear	120	4.32	5.57	0	14
Man	120	0.49	0.50	0	1
Catholic	120	0.53	0.50	0	1
Education	115	5.84	5.16	0	16
Totalincome	115	5224.50	9455.1	500	83333
Investineducation	92	3.33	1.75	0	5
Sons	112	2.80	2.83	0	10
Age	120	44.00	14.71	22	93
Kikuyu	120	0.10	0.28	0	1
Married	120	0.90	0.28	0	1
Mainactagr	119	0.80	0.42	0	1
Durablerecbought	120	1.00	0.98	0	4
Dietary	120	2.30	0.41	0	3.2
*Votelastelection**	120	0.84	0.37	0	1
Trustgovnot	120	0.10	0.30	0	1
Trustpartynot	120	0.54	0.50	0	1
Trustunionnot	120	0.31	0.46	0	1
Trustparty	120	0.88	1.09	0	3
Trustgov	120	2.18	1.02	0	3
Trustunion	120	1.43	1.16	0	3

* percent values

Table 6. The relationship between affiliation years and indicators of "generalised" trust

	Non affiliated	1-6 affiliation years	More than 6 years of affiliation
Mistrust in government*	30.51	13.55	3.12
Mistrust in political parties*	58.62	55.93	46.87
Mistrust in trade unions*	37.93	30.50	25.00
Voter turnout**	68.96	86.44	93.75

* Percent of respondents declaring no trust at all.
** Percent of group members who voted in last year election

Table 7. The effect of FT affiliation years on "generalised trust" indicators

	No trust at all in the Government	No trust at all in Political parties	No trust at all in Trade unions	Index of Generalised Trust*
Workyear	-0.44350862	-0.17231455	-0.2211632	0.0586246
	(-1.96)	(-2.76)	(-2.88)	(3.42)
Onlyfruit	-2.1659515	-1.39626	-1.2537129	0.23877494
	(-1.12)	(-1.65)	(-1.47)	(1.24)
Sons	-0.19718266	-0.15847123	0.16583921	0.00080784
	(-0.89)	(-1.2)	(1.23)	(0.02)
Man	0.65333527	-0.73286262	0.4633581	-0.04347177
	(0.35)	(-1.05)	(0.59)	(-0.27)
Catholic	3.6288725	-0.24050868	0.42807661	-0.08910078
	(3.57)	(-0.36)	(0.58)	(-0.57)
Education	-0.40919378	-0.06518861	-0.04258411	0.01498371
	(-1.65)	(-0.92)	(-0.56)	(0.73)
Totalincome	0.00001819	0.00003736	-0.00005469	-0.00000379
	(0.58)	(0.83)	(-0.82)	(-0.51)
Investineducation	-0.09953622	0.03046515	0.02240751	-0.01953395
	(-0.19)	(0.15)	(0.11)	(-0.41)
Age	0.12060452	0.07615741	-0.00934866	0.01448245
	(2.22)	(1.88)	(-0.29)	(1.84)
Mainactagr	-3.6066126	-0.13200154	0.58500122	0.10775598
	(-1.88)	(-0.15)	(0.48)	(0.45)
Durablerec~t	0.36914427	-0.10310452	0.03787527	-0.00308306
	(0.65)	(-0.33)	(0.13)	(-0.04)
Dietary	-0.77129306	0.0309636	-1.2949429	0.27837129
	(-0.38)	(0.04)	(-1.23)	(1.19)
Kikuyu		0.54315332	0.05170432	-0.10798219
		(0.55)	(0.06)	(-0.43)
Married			-0.59178795	0.77566227
			(-0.44)	(1.66)
Control				-0.37742125
				(-0.22)
Constant	-2.1747649	-0.617827	3.2096106	0.39175293
	(-0.7)	(-0.26)	(1.02)	(0.33)
Control				
Sons				-0.12728085
				(-1.18)
Education				-0.04859118
				(-0.95)
Totalincome				-0.00004624
				(-0.78)
Age				-0.04110233
				(-1.19)
Constant				1.3455784
				(0.98)
Wald χ^2	27.63	18.11	20.54	27.32
Prob > χ^2	(0.0063)	(0.1536)	(0.114)	(0.0263)
Pseudo R^2	0.4536	0.203	0.2247	
Log L	-9.6750098	-39.887141	-35.841682	-92.114223

*Unweighted average of trust in government, political parties and trade unions.